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PATENT SPECIFICATION

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COMPLETE SPECIFICATION

Improvements in and relating to Anchorage Means for Use in Concrete and like Constructions

We, EDMUND NUTTALL, SONS & COMPANY (LONDON) LIMITED, a Company registered under the laws of Great Britain, of 22, Grosvenor Gardens, 5 London, S.W.1, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

10 This invention relates to anchorage means for use in concrete or like constructions. It has hitherto been the practice to provide anchorages in such constructions by embedding a nut in the 15 cast concrete into which a bolt can be subsequently threaded for securing temporary structures, such as shuttering for example, to the previously set section of concrete. The object of this invention is 20 to provide a more simple and convenient form of anchorage, and a further object is to provide an improved anchorage means particularly adapted for use in securing shuttering of the cantilever 25 type, although the invention is not restricted to such specific uses.

The invention comprises a tapered screw having a left-hand thread and means for securing a bolt or other fixing 30 member to the large end of the screw, the arrangement being such that the screw can be withdrawn from set concrete or the like, in which it has previously been embedded, by right-handed 35 rotation of the fixing member.

The invention also comprises a tapered screw having a left-hand thread and a 40 socket at the large end of the screw having an internal right-hand thread to receive a fixing bolt or the like, the form and pitch of the tapered thread being such that the screw can readily be withdrawn from set concrete or the like, in which it 45 has previously been embedded, by right-handed rotation of a bolt or the like engaged in the threaded socket.

According to a further feature of the invention, the screw has a relatively coarse pitch and the cross-section of the thread is triangular, the angle between 50 opposite faces of the thread section being preferably a right angle. In a preferred form, the screw has a tapered shank at its large end in which the threaded socket is 55 formed.

The invention also comprises the moulding of concrete and like structures by embedding anchorage means as defined 60 above in the concrete or the like, securing a temporary structure such as shuttering for example to the set concrete by aid of the fixing member engaged with the 65 anchorage screw, and subsequently withdrawing the screw by right-handed rotation of the fixing member.

The invention further comprises a moulding operation in accordance with the previous paragraph, including securing a cantilever type shuttering element 70 in position for moulding by the aid of anchorage means embedded in the previously set concrete, and attaching an anchorage screw to the shuttering 75 element in position to be embedded in the concrete to be moulded thereby. It is preferred that the shuttering element should be secured by a stud engaged in the anchorage screw and having a nut 80 thereon.

In the accompanying drawings:—
Figure 1 is an elevation of an anchorage screw according to the invention; 80

Figure 2 is a sectional view showing the construction of a concrete wall employing an anchorage screw according 85 to the invention;

Figure 3 is an elevation of the shuttering element shown in Figure 2.

In carrying the invention into effect according to one convenient mode as 90 applied by way of example to the anchoring of cantilever type shuttering for con-

modes of engaging a fixing member may be employed provided that such permit of withdrawing the screw by right-handed rotation thereof.

5 Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

10 1. Anchorage means comprising a tapered screw having a left-hand thread and means for securing a bolt or other fixing member to the large end of the screw, the arrangement being such that the screw can be withdrawn from set concrete or the like, in which it has previously been embedded, by right-handed rotation of the fixing member.

2. Anchorage means as claimed in Claim 1, in which a socket is provided at the large end of the screw having an internal right-hand thread to receive a fixing bolt or the like, the form and pitch of the tapered thread being such that the screw can readily be withdrawn from set concrete by right-handed rotation of a bolt or the like engaged in the threaded socket.

3. Anchorage means as claimed in Claim 1 or 2, in which the screw has a coarse pitch and the cross-section of the thread is triangular.

4. Anchorage means as claimed in Claim 3, in which the angle between the opposite faces of the thread section is a right-angle.

5. Anchorage means as claimed in any of the preceding claims, in which the screw has a tapered shank at its large end in which the threaded socket is formed.

6. In the moulding of concrete and like structures, embedding anchorage means as claimed in any of the preceding claims in the concrete or the like, securing a temporary structure such as shuttering for example to the set concrete or the like by the aid of the fixing member engaged with the anchorage screw, and subsequently withdrawing the screw by right-handed rotation of the said fixing member.

7. In the moulding of concrete and like structures as claimed in Claim 6, securing a cantilever type shuttering element in position for moulding by the aid of anchorage means embedded in the previously set concrete, and attaching an anchorage screw to the shuttering element in position to be embedded in the concrete to be moulded thereby.

8. In a moulding operation as claimed in Claim 7, securing the shuttering element by a stud engaged in the anchorage screw and having a nut thereon to enable the fixing to be tightened without imparting rotation to the screw.

9. The improved anchorage means and its mode of use substantially as hereinbefore described with reference to the accompanying drawings.

Dated this 7th day of November, 1949.
MARKS & CLERK.

This Drawing is a reproduction of the Original on a reduced scale

